

In the CLAIMS:

Claim 1 (currently amended): Viscometer instrument comprising:

- (a) a rotor which is driven to rotate while contacting with a sample liquid to be measured,
- (b) means for driving said rotor to rotate,
- (c) a bob within said rotor,
- (d) means for directly or indirectly sensing the rotation of said ~~bob~~ bob,
- (e) means for suspending said bob comprising:

- (1) At least two axially disposed sleeves. ~~Said sleeves that~~ do not directly contact with each other and they, and said sleeves are arranged so that at least one of said sleeves is mounted on a stationary frame, and at least one of the other sleeves directly or indirectly connecting to a portion of said bob, and moves together with said bob,
- (2) One or more leaf springs that hold said sleeves together[[. A]], and at least some of said leaf springs have their two ends connected to two different said sleeves.

Claim 2 (currently amended): The instrument of claim 1 wherein said ~~means for suspending said bob has two coaxial sleeves~~ axially disposed sleeves are coaxial.

Claim 3 (original): The instrument of claim 2 wherein said two coaxial sleeves are cylindrical.

Claim 4 (original): The instrument of claim 3 wherein said two coaxial sleeves have same outside diameter.

Claim 5 (original): The instrument of claim 3 wherein said two coaxial sleeves have different outside diameter.

Claim 6 (original): The instrument of claim 3 wherein said two coaxial sleeves have angular displacement relative to each other when a torque is applied on said bob.

Claim 7 (original): The instrument of claim 6 wherein said angular displacement is approximately linear corresponding to said torque that applied on said bob.

Claim 8 (original): The instrument of claim 1 wherein a bob shaft is used to connect said bob to said means for suspending said bob.

Claim 9 (original): The instrument of claim 1 wherein said means for suspending said bob is mounted away from said sample liquid so that temperature effects and corrosion damage are minimized.

Claim 10 (original): The instrument of claim 1 wherein said means for sensing the rotation of said bob is a pair of concentrically mounted electrical stator and rotor.

Claim 11 (original): The instrument of claim 1 wherein said means for sensing the rotation of said bob is a strain gauge.

Claim 12 (original): The instrument of claim 1 wherein said means for sensing the rotation of said bob is a metal arm and a wire wound conductance sensor.

Claim 13 (original): The instrument of claim 1 wherein said means for sensing the rotation of said bob consists of, a member rotating with said bob and a sensor measuring the distance to the said member while not contacting it.